Comparisons of Job Characteristics

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge — Similarity of Focus Occupation to Associated Occupation: 76

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	22.4	11.8	<<	Extensive education and/or training may be required
Design	5.2	21.5	13.4	<<	Extensive education and/or training may be required
Mathematics	9.2	18.1	14.5	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	17.7	10.1	<<	Extensive education and/or training may be required
Physics	4.3	15.3	10.9	<<	Extensive education and/or training may be required
Mechanical	6.8	12.9	16.5	>>	Current knowledge level is likely more than sufficient
Telecommunications	3.9	7.2	10.4	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills — Similarity of Focus Occupation to Associated Occupation: 23

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Writing	9.2	13.0	7.7	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	12.5	9.6	<<	Extensive development of skills in this area may be required
Mathematics	6.2	10.4	9.3	<	A higher skill level may be required

Operations Analysis	5.0	9.8	6.6	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	9.8	8.1	<	A higher skill level may be required
Science	4.5	9.4	5.3	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	8.8	12.3	>>	Skill level is likely more than sufficient
Technology Design	2.6	5.1	4.4	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities — Similarity of Focus Occupation to Associated Occupation: 58

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Written Comprehension	11.0	14.8	10.3	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	14.0	12.7	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	13.9	11.2	<	Some improvement in abilities may be required
Written Expression	9.8	13.8	8.1	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	13.5	10.6	<<	Extensive improvement in abilities may be required
Information Ordering	9.9	12.3	11.6	0	Current ability level may be sufficient
Category Flexibility	9.0	11.4	9.7	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	10.4	9.0	<	Some improvement in abilities may be required
Number Facility	6.3	10.1	7.7	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common — Similarity of Focus Occupation to Associated Occupation: 48

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Work Activities	Exclusivity of Activity
Conduct training for personnel	30
Direct and coordinate activities of workers or staff	3
Perform safety inspections in industrial, manufacturing or repair setting	32
Prepare reports	8

Read blueprints	10
Read technical drawings	7

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 52

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electrical Engineers (17-2071)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Electrical measuring and testing equipment	7
Indicating and recording instruments	2
Industry specific software	1
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Mechanical instruments	14
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.